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<110> Chen, Sei Yu
Macina, Roberto
Sun, Yongming
Recipon, Herve

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<220>
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<400> 21
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<210> 22
 <211> 19
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic

<400> 22
 agggcgagaga ggaacagca 19

<210> 23
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic

<400> 23
 ccagcgagga gcagcaggga tg 22

<210> 24
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<400> 24
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<210> 25
<211> 23
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<220>
<223> Description of Artificial Sequence: Synthetic

<400> 25
gccccaaacag aacagactaa aaa 23

<210> 26
<211> 38
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic

<400> 26
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<210> 27
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<212> DNA
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<223> Description of Artificial Sequence: Synthetic

<400> 27
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<210> 28
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<210> 33
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<223> Description of Artificial Sequence: Synthetic

<400> 33
tgcagcagaa aggggagag 19

<210> 34
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<400> 34
tccccattgc cctcaagt 18

<210> 35
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<223> Description of Artificial Sequence: Synthetic

<400> 35
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<210> 36
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<212> DNA
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<223> Description of Artificial Sequence: Synthetic

<400> 36
caggetcatt ttattgtgt cat 23

<210> 37
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<220>
<223> Description of Artificial Sequence: Synthetic

<400> 37
cccacactga tttaggcaca tag 23

<210> 38
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<210> 39
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<210> 40
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<210> 43
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<400> 43
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<210> 44
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<210> 45
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<400> 45
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<210> 46
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<400> 46
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<210> 47
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25

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<400> 50
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18

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19

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27

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<223> Description of Artificial Sequence: Synthetic

<400> 53
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24

<210> 54
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<212> DNA
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<223> Description of Artificial Sequence: Synthetic

<400> 54
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24

<210> 55
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30

<210> 56
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<400> 59
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<210> 60
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<220>
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<400> 60
caaggagggg gcatttgta 19

<210> 61
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tcctttcctt ggcaatctcc tctcctg 27

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<400> 63
attccagcct gagtcacaca ga 22

<210> 64
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27

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<223> Description of Artificial Sequence: Synthetic

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22

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<400> 66
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25

<210> 67
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<400> 67
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33

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<400> 68
atgggcaggt ctttttttcc 20

<210> 69
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 69
aggcagttct gttacccac ta 22

<210> 70
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 70
tgtgctaagg acaggattgg ttgggta 27

<210> 71
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 71
actgcccacc acgctttata 20

<210> 72
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 72
tgagggtggg gagaggttac

20

<210> 73
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

<400> 73
agtcacatta ttagaggttc gcattctcagg

30

<210> 74
<211> 2722
<212> DNA
<213> Homo sapiens

<400> 74
gtttggatct tgggtcattc tcaagcctca gacagtgggt caaagttttt ttcttccatt 60
tcaggtgtcg tgaaggctt gaattcggcg cgccagatat cacacgtgcc aaggggctgg 120
ctcagcgaca cgggcgactg cggcgggcgc gggagggcat cccgttgggg atcttccgc 180
acactgaaga gtacgtcttc gggctctacc ctaatcacat aatggctgtg ttaatacaga 240
agtctgtctc ggatattgatt aaagagtttc gaaaaaattg gcgtgtctct tgtaactctg 300
agagaactac tctattgtgt gcagactcca tgcctctggc attgcagctt tctatggcgg 360
agaacaacaa acagcacagt ggagaattta cagtctctct cagtgtatgt ttattgacat 420
ggaaatactt gctccatgag aaattgaact taccagttga aaacatggac gtgactgacc 480
attatgagga cgtaggaag atttatgatg atttcttgaa gaacagtaat atgttagatc 540
tgattgatgt ttatcaaaaa ttaggggctt tgacttctaa ttgtgaaaa tataaacacag 600
tatctcctag tcaactactg gattttctgt ctggcaaaaca gtatgcagta ggtgatgaaa 660
ctgattcttc tataccaaca tcaccaacaa gtaaatacaa ccgtgataat gaaaagggtg 720
agctgtctagc aaggaaaatt atcttttcat atttaaatct gctagtgaat tcaaaagaatg 780
acctggctgt ggcttatatt ctcaatattc ctgatagagg actaggaaga gaagccttca 840
ctgatttgaa acatgctgct cgagagaaac aaatgtctat ctttttgggt gccacgtctt 900
ttattagaac aatagagctt ggaggggaaag gatatgcacc accaccatca gatcctttaa 960
ggacacatgt aaagggattg tctaatttta ttaatttcat tgacaaaatta gatgagattc 1020
ttggagaaat accaaaccca agaggggtgta aatccatctg ttggaagatc aacaattgga 1080
acgagttttg gaaatgttca tctggacaga agtaaaaaatg aaaaagtatc aagaaaatca 1140
accagtgcga caggaaataa aagctcaaaa aggaacacagg tggattttgga tgggtgaaat 1200
attctctgtg ataatagaaa tgaaccacct caacataaaa atgctaaaaat acctaaagaaa 1260
tcaaatgatt cacagaatag attgtacggc aaactagcta aagtagcaaa aagtaataaa 1320
tgtactgcga aggacaagtt gattttctggc caggcaaaagt taactcagtt ttttagacta 1380
taaatctgtg tcttatatgc tttaggttta tgtatctata aaccattcac caaagacatg 1440
cttaattttt aagagatcaa ggtgtaaat atgatgattt attatttttg tctacagtgt 1500

agtgaagggt agtatgttaa gcattgttta aaaatactag taagtcataa ttatgcagaa 1560
 ttttcacaaa gtttaaatgca cagagaaaagc atatcatttc agttactgat acatcttaac 1620
 actactttct ttttaaacag acatttaaca tacacaaggt atagtagcag tatgggcttc 1680
 tcttcccat ggcaattaaa tgcttttatt ttcttctgaa aagatgatgt ggaccaacag 1740
 gtatcagact tgccaacaag gtcggtagac tcttccagc atacatctga gcactgaagg 1800
 aagaagaaa tttaaatgt ttaaaggact ataattatca cacaaaattt attaagaaaa 1860
 aaagaatgga tctagtataa ctaattctga gtaaaccaaa atgataataa ttaattgttg 1920
 ctatttaatc ccacattttt ggcagggtga attgagccat ggtcttattt gattttgtta 1980
 tgattgcac caaattcact ttaactcaga gttctgttta atggtggtag gatgtaagaa 2040
 ttgaatttga aaagaactact cactgtcaaa atctctcctt cctataggaa atttagctga 2100
 gttttcttca tccccaattt ctctcttttc ttgtgttgat tcaagtattc gaactccatt 2160
 ctacagctgg aaagctacag atccttttag tgcaagataa gggttttatag ccagattcag 2220
 tggcagacca tgatttaaga aattatgttt ggagcctgtg ttctgtaaaag agaaggttga 2280
 ttgggttttt agctatcgta ttgcggagtgg aactataata caattgtata atattcttgt 2340
 tgatcaattc aaagttaact tgcactgttt ttgacttttt aaaaatacct tagatgcataa 2400
 tttataggag aaaaaacact ttcagataag aggtgtttgc tgggtaggaa gaactacctg 2460
 gcactgaaga aatatcgta tgcgtcttaa tgcataattg gactgtttgc atatactctt 2520
 gtttataaaa gtatcagttt tactttttcag aggtatttga agaatacattt aaattttcat 2580
 tgaataaac gacaagtcac attgccaaaa aaaaaaaaaa aaaaaaaagt atttcttacc 2640
 ctctttctcc gcactgggc tgcaggcgcc cgcaggtaag ccagcccagg cctcgccctc 2700
 cagctcaggc gggacaggag cg 2722

<210> 75

<211> 64

<212> PRT

<213> Homo sapiens

<400> 75

Val Leu Asn Ala Phe Leu Gln Pro Pro Gly Arg Gln Met Ile Ala Ile
 1 5 10 15

Arg Lys Arg Gln Pro Glu Glu Thr Asn Asn Asp Tyr Glu Thr Ala Asp
 20 25 30

Gly Gly Tyr Met Thr Leu Asn Pro Arg Ala Pro Thr Asp Asp Asp Lys
 35 40 45

Asn Ile Tyr Leu Thr Leu Pro Pro Asn Asp His Val Asn Ser Asn Asn
 50 55 60

<210> 76

<211> 261

<212> PRT

<213> Homo sapiens

<400> 76

Met Ser Thr Thr Thr Cys Gln Val Val Ala Phe Leu Leu Ser Ile Leu
1 5 10 15

Gly Leu Ala Gly Cys Ile Ala Ala Thr Gly Met Asp Met Trp Ser Thr
20 25 30

Gln Asp Leu Tyr Asp Asn Pro Val Thr Ser Val Phe Gln Tyr Glu Gly
35 40 45

Leu Trp Arg Ser Cys Val Arg Gln Ser Ser Gly Phe Thr Glu Cys Arg
50 55 60

Pro Tyr Phe Thr Ile Leu Gly Leu Pro Ala Met Leu Gln Ala Val Arg
65 70 75 80

Ala Leu Met Ile Val Gly Ile Val Leu Gly Ala Ile Gly Leu Leu Val
85 90 95

Ser Ile Phe Ala Leu Lys Cys Ile Arg Ile Gly Ser Met Glu Asp Ser
100 105 110

Ala Lys Ala Asn Met Thr Leu Thr Ser Gly Ile Met Phe Ile Val Ser
115 120 125

Gly Leu Cys Ala Ile Ala Gly Val Ser Val Phe Ala Asn Met Leu Val
130 135 140

Thr Asn Phe Trp Met Ser Thr Ala Asn Met Tyr Thr Gly Met Gly Gly
145 150 155 160

Met Val Gln Thr Val Gln Thr Arg Tyr Thr Phe Gly Ala Ala Leu Phe
165 170 175

Val Gly Trp Val Ala Gly Gly Leu Thr Leu Ile Gly Gly Val Met Met
180 185 190

Cys Ile Ala Cys Arg Gly Leu Ala Pro Glu Glu Thr Asn Tyr Lys Ala
195 200 205

Val Ser Tyr His Ala Ser Gly His Ser Val Ala Tyr Lys Pro Gly Gly
210 215 220

Phe Lys Ala Ser Thr Gly Phe Gly Ser Asn Thr Lys Asn Lys Lys Ile
225 230 235 240

Leu Arg Val Arg Glu Val Ala Glu Glu Ala Gln Ala Ala Arg Leu Ala
195 200 205

Ala Ala Ala Pro Pro Arg Lys Ala Lys Val Glu Ala Glu Val Ala
210 215 220

Ala Gly Ala Arg Phe Thr Ala Pro Gln Val Glu Leu Val Gly Pro Arg
225 230 235 240

Leu Pro Gly Ala Glu Val Gly Val Pro Gln Val Ser Ala Pro Lys Ala
245 250 255

Ala Pro Ser Ala Glu Ala Ala Gly Gly Phe Ala Leu His Leu Pro Thr
260 265 270

Leu Gly Leu Gly Ala Pro Ala Pro Pro Ala Val Glu Ala Pro Ala Val
275 280 285

Gly Ile Gln Val Pro Gln Val Glu Leu Pro Ala Leu Pro Ser Leu Pro
290 295 300

Thr Leu Pro Thr Leu Pro Cys Leu Glu Thr Arg Glu Gly Ala Val Ser
305 310 315 320

Val Val Val Pro Thr Leu Asp Val Ala Ala Pro Thr Val Gly Val Asp
325 330 335

Leu Ala Leu Pro Gly Ala Glu Val Glu Ala Arg Gly Glu Ala Pro Glu
340 345 350

Val Ala Leu Lys Met Pro Arg Leu Ser Phe Pro Arg Phe Gly Ala Arg
355 360 365

Ala Lys Glu Val Ala Glu Ala Lys Val Ala Lys Val Ser Pro Glu Ala
370 375 380

Arg Val Lys Gly Pro Arg Leu Arg Met Pro Thr Phe Gly Leu Ser Leu
385 390 395 400

Leu Glu Pro Arg Pro Ala Ala Pro Glu Val Val Glu Ser Lys Leu Lys
405 410 415

Leu Pro Thr Ile Lys Met Pro Ser Leu Gly Ile Gly Val Ser Gly Pro
420 425 430

Glu Val Lys Val Pro Lys Gly Pro Glu Val Lys Leu Pro Lys Ala Pro
435 440 445

Glu Val Lys Leu Pro Lys Val Pro Glu Ala Ala Leu Pro Glu Val Arg
450 455 460

Leu Pro Glu Val Glu Leu Pro Lys Val Ser Glu Met Lys Leu Pro Lys
465 470 475 480

Val Pro Glu Met Ala Val Pro Glu Val Arg Leu Pro Glu Val Glu Leu
485 490 495

Pro Lys Val Ser Glu Met Lys Leu Pro Lys Val Pro Glu Met Ala Val
500 505 510

Pro Glu Val Arg Leu Pro Glu Val Gln Leu Leu Lys Val Ser Glu Met
515 520 525

Lys Leu Pro Lys Val Pro Glu Met Ala Val Pro Glu Val Arg Leu Pro
530 535 540

Glu Val Gln Leu Pro Lys Val Ser Glu Met Lys Leu Pro Glu Val Ser
545 550 555 560

Glu Val Ala Val Pro Glu Val Arg Leu Pro Glu Val Gln Leu Pro Lys
565 570 575

Val Pro Glu Met Lys Val Pro Glu Met Lys Leu Pro Lys Val Pro Glu
580 585 590

Met Lys Leu Pro Glu Met Lys Leu Pro Glu Val Gln Leu Pro Lys Val
595 600 605

Pro Glu Met Ala Val Pro Asp Val His Leu Pro Glu Val Gln Leu Pro
610 615 620

Lys Val Pro Glu Met Lys Leu Pro Glu Met Lys Leu Pro Glu Val Lys
625 630 635 640

Leu Pro Lys Val Pro Glu Met Ala Val Pro Asp Val His Leu Pro Glu
645 650 655

Val Gln Leu Pro Lys Val Pro Glu Met Lys Leu Pro Lys Met Pro Glu
660 665 670

Met Ala Val Pro Glu Val Arg Leu Pro Glu Val Gln Leu Pro Lys Val
675 680 685

Ser Glu Met Lys Leu Pro Lys Val Pro Glu Met Ala Val Pro Asp Val
690 695 700

Lys Phe Ala Ile Ser Leu Pro Lys Ala Arg Val Gly Ala Glu Ala Glu
965 970 975

Ala Lys Gly Ala Gly Glu Ala Gly Leu Leu Pro Ala Leu Asp Leu Ser
980 985 990

Ile Pro Gln Leu Ser Leu Asp Ala His Leu Pro Ser Gly Lys Val Glu
995 1000 1005

Val Ala Gly Ala Asp Leu Lys Phe Lys Gly Pro Arg Phe Ala Leu Pro
1010 1015 1020

Lys Phe Gly Val Arg Gly Arg Asp Thr Glu Ala Ala Glu Leu Val Pro
1025 1030 1035 1040

Gly Val Ala Glu Leu Glu Gly Lys Gly Trp Gly Trp Asp Gly Arg Val
1045 1050 1055

Lys Met Pro Lys Leu Lys Met Pro Ser Phe Gly Leu Ala Arg Gly Lys
1060 1065 1070

Glu Ala Glu Val Gln Gly Asp Arg Ala Ser Pro Gly Glu Lys Ala Glu
1075 1080 1085

Ser Thr Ala Val Gln Leu Lys Ile Pro Glu Val Glu Leu Val Thr Leu
1090 1095 1100

Gly Ala Gln Glu Glu Gly Arg Ala Glu Gly Ala Val Ala Val Ser Gly
1105 1110 1115 1120

Met Gln Leu Ser Gly Leu Lys Val Ser Thr Ala Arg Gln Val Val Thr
1125 1130 1135

Glu Gly His Asp Ala Gly Leu Arg Met Pro Pro Leu Gly Ile Ser Leu
1140 1145 1150

Pro Gln Val Glu Leu Thr Gly Phe Gly Glu Ala Gly Thr Pro Gly Gln
1155 1160 1165

Gln Ala Gln Ser Thr Val Pro Ser Ala Glu Gly Thr Ala Gly Tyr Arg
1170 1175 1180

Val Gln Val Pro Gln Val Thr Leu Ser Leu Pro Gly Ala Gln Val Ala
1185 1190 1195 1200

Gly Gly Glu Leu Leu Val Gly Glu Gly Val Phe Lys Met Pro Thr Val
1205 1210 1215

0010237-002703

Thr Val Pro Gln Leu Glu Leu Asp Val Gly Leu Ser Arg Glu Ala Gln
1220 1225 1230

Ala Gly Glu Ala Ala Thr Gly Glu Gly Gly Leu Arg Leu Lys Leu Pro
1235 1240 1245

Thr Leu Gly Ala Arg Ala Arg Val Gly Gly Glu Gly Ala Glu Glu Gln
1250 1255 1260

Pro Pro Gly Ala Glu Arg Thr Phe Cys Leu Ser Leu Pro Asp Val Glu
1265 1270 1275 1280

Leu Ser Pro Ser Gly Gly Asn His Ala Glu Tyr Gln Val Ala Glu Gly
1285 1290 1295

Glu Gly Glu Ala Gly His Lys Leu Lys Val Arg Leu Pro Arg Phe Gly
1300 1305 1310

Leu Val Arg Ala Lys Glu Gly Ala Glu Glu Gly Glu Lys Ala Lys Ser
1315 1320 1325

Pro Lys Leu Arg Leu Pro Arg Val Gly Phe Ser Gln Ser Glu Met Val
1330 1335 1340

Thr Gly Glu Gly Ser Pro Ser Pro Glu Glu Glu Glu Glu Glu Glu
1345 1350 1355 1360

Glu Gly Ser Gly Glu Gly Ala Ser Gly Arg Arg Gly Arg Val Arg Val
1365 1370 1375

Arg Leu Pro Arg Val Gly Leu Ala Ala Pro Ser Lys Ala Ser Arg Gly
1380 1385 1390

Gln Glu Gly Asp Ala Ala Pro Lys Ser Pro Val Arg Glu Lys Ser Pro
1395 1400 1405

Lys Phe Arg Phe Pro Arg Val Ser Leu Ser Pro Lys Ala Arg Ser Gly
1410 1415 1420

Ser Gly Asp Gln Glu Glu Gly Gly Leu Arg Val Arg Leu Pro Ser Val
1425 1430 1435 1440

Gly Phe Ser Glu Thr Gly Ala Pro Gly Pro Ala Arg Met Glu Gly Ala
1445 1450 1455

Gln Ala Ala Ala Val
1460

<210> 78
 <211> 879
 <212> PRT
 <213> Homo sapiens

<400> 78

Arg Glu Leu Trp Thr Phe Ala Gly Ser Arg Asp Pro Ser Ala Pro Arg
 1 5 10 15

Leu Ala Tyr Gly Tyr Gly Pro Gly Ser Leu Arg Glu Leu Arg Ala Arg
 20 25 30

Glu Phe Ser Arg Leu Ala Gly Thr Val Tyr Leu Asp His Ala Gly Ala
 35 40 45

Thr Leu Phe Ser Gln Ser Gln Leu Glu Ser Phe Thr Ser Asp Leu Met
 50 55 60

Glu Asn Thr Tyr Gly Asn Pro His Ser Gln Asn Ile Ser Ser Lys Leu
 65 70 75 80

Thr His Asp Thr Val Glu Gln Val Arg Tyr Arg Ile Leu Ala His Phe
 85 90 95

His Thr Thr Ala Glu Asp Tyr Thr Val Ile Phe Thr Ala Gly Ser Thr
 100 105 110

Ala Ala Leu Lys Leu Val Ala Glu Ala Phe Pro Trp Val Ser Gln Gly
 115 120 125

Pro Glu Ser Ser Gly Ser Arg Phe Cys Tyr Leu Thr Asp Ser His Thr
 130 135 140

Ser Val Val Gly Met Arg Asn Val Thr Met Ala Ile Asn Val Ile Ser
 145 150 155 160

Ile Pro Val Arg Pro Glu Asp Leu Trp Ser Ala Glu Glu Arg Gly Ala
 165 170 175

Ser Ala Ser Asn Pro Asp Cys Gln Leu Pro His Leu Phe Cys Tyr Pro
 180 185 190

Ala Gln Ser Asn Phe Ser Gly Val Arg Tyr Pro Leu Ser Trp Ile Glu
 195 200 205

Glu Val Lys Ser Gly Arg Leu Arg Pro Val Ser Thr Pro Gly Lys Trp

0004027 002701

210

Phe Val Leu Leu Asp Ala Ala Ser Tyr Val Ser Thr Ser Pro Leu Asp
225 230 235 240

215

Leu Ser Ala His Gln Ala Asp Phe Val Pro Ile Ser Phe Tyr Lys Ile
245 250 255

220

Phe Gly Phe Arg Thr Gly Leu Gly Ala Leu Trp Val His Asn Arg Ala
260 265 270

Ala Pro Leu Leu Arg Lys Thr Tyr Phe Gly Gly Gly Thr Ala Ser Ala
275 280 285

Tyr Leu Ala Gly Glu Asp Phe Tyr Ile Pro Arg Gln Ser Val Ala Gln
290 295 300

Arg Phe Glu Asp Gly Thr Ile Ser Phe Leu Asp Val Ile Ala Leu Lys
305 310 315 320

His Gly Phe Asp Thr Leu Glu Arg Leu Thr Gly Gly Met Glu Asn Ile
325 330 335

Lys Gln His Thr Phe Thr Leu Ala Gln Tyr Thr Tyr Met Ala Leu Ser
340 345 350

Ser Leu Gln Tyr Pro Asn Gly Ala Pro Val Val Arg Ile Tyr Ser Asp
355 360 365

Ser Glu Phe Ser Ser Pro Glu Val Gln Gly Pro Ile Ile Asn Phe Asn
370 375 380

Val	Leu	Asp	Asp	Lys	Gly	Asn	Ile	Ile	Gly	Tyr	Ser	Gln	Val	Asp	Lys
385					390					395					400

Met Ala Ser Leu Tyr Asn Ile His Leu Arg Thr Gly Cys Phe Cys Asn
405 410 415

Thr Gly Ala Cys Gln Arg His Leu Gly Ile Ser Asn Glu Met Val Arg
420 425 430

Lys His Phe Gln Ala Gly His Val Cys Gly Asp Asn Met Asp Leu Ile
435 440 445

Asp Gly Gln Pro Thr Gly Ser Val Arg Ile Ser Phe Gly Tyr Met Ser
450 455 460

Thr Leu Asp Asp Val Gln Ala Phe Leu Arg Phe Ile Ile Asp Thr Arg

465	470	475	480
Leu His Ser Ser Gly Asp Trp Pro Val Pro Gln Ala His Ala Asp Thr			
485	490	495	
Gly Glu Thr Gly Ala Pro Ser Ala Asp Ser Gln Ala Asp Val Ile Pro			
500	505	510	
Ala Val Met Gly Arg Arg Ser Leu Ser Pro Gln Glu Asp Ala Leu Thr			
515	520	525	
Gly Ser Arg Val Trp Asn Asn Ser Ser Thr Val Asn Ala Val Pro Val			
530	535	540	
Ala Pro Pro Val Cys Asp Val Ala Arg Thr Gln Pro Thr Pro Ser Glu			
545	550	555	560
Lys Ala Ala Gly Val Leu Glu Gly Ala Leu Gly Pro His Val Val Thr			
565	570	575	
Asn Leu Tyr Leu Tyr Pro Ile Lys Ser Cys Ala Ala Phe Glu Val Thr			
580	585	590	
Arg Trp Pro Val Gly Asn Gln Gly Leu Leu Tyr Asp Arg Ser Trp Met			
595	600	605	
Val Val Asn His Asn Gly Val Cys Leu Ser Gln Lys Gln Glu Pro Arg			
610	615	620	
Leu Cys Leu Ile Gln Pro Phe Ile Asp Leu Arg Gln Arg Ile Met Val			
625	630	635	640
Ile Lys Ala Lys Gly Met Glu Pro Ile Glu Val Pro Leu Glu Glu Asn			
645	650	655	
Ser Glu Arg Thr Gln Ile Arg Gln Ser Arg Val Cys Ala Asp Arg Val			
660	665	670	
Ser Thr Tyr Asp Cys Gly Glu Lys Ile Ser Ser Trp Leu Ser Thr Phe			
675	680	685	
Phe Gly Arg Pro Cys His Leu Ile Lys Gln Ser Ser Asn Ser Gln Arg			
690	695	700	
Asn Ala Lys Lys Lys His Gly Lys Asp Gln Leu Pro Gly Thr Met Ala			
705	710	715	720
Thr Leu Ser Leu Val Asn Glu Ala Gln Tyr Leu Leu Ile Asn Thr Ser			

725

730

735

Ser Ile Leu Glu Leu His Arg Gln Leu Asn Thr Ser Asp Glu Asn Gly
740 745 750

Lys Glu Glu Leu Phe Ser Leu Lys Asp Leu Ser Leu Arg Phe Arg Ala
755 760 765

Asn Ile Ile Ile Asn Gly Lys Arg Ala Phe Glu Glu Glu Lys Trp Asp
770 775 780

Glu Ile Ser Ile Gly Ser Leu Arg Phe Gln Val Leu Gly Pro Cys His
785 790 795 800

Arg Cys Gln Met Ile Cys Ile Asp Gln Gln Thr Gly Gln Arg Asn Gln
805 810 815

His Val Phe Gln Lys Leu Ser Glu Ser Arg Glu Thr Lys Val Asn Phe
820 825 830

Gly Met Tyr Leu Met His Ala Ser Leu Asp Leu Ser Ser Pro Cys Phe
835 840 845

Leu Ser Val Gly Ser Gln Val Leu Pro Val Leu Lys Glu Asn Val Glu
850 855 860

Gly His Asp Leu Pro Ala Ser Glu Lys His Gln Asp Val Thr Ser
865 870 875

<210> 79

<211> 107

<212> PRT

<213> Homo sapiens

<400> 79

Ser Phe Phe Phe Phe Leu Arg Ala Ser Leu Thr Leu Ser Pro Arg Leu
1 5 10 15

Glu Cys Ser Gly Thr Ile Ala Ala His Cys Asn Pro His Leu Pro Gly
20 25 30

Ser Ser Asn Tyr Ala Ala Ser Ala Ser Gln Glu Ala Gly Thr Ser Gly
35 40 45

Met Ser His His Thr Trp Ile Ile Phe Cys Ile Phe Leu Val Glu Thr
50 55 60

Gly Phe His His Val Gly Gln Ala Gly Leu Glu Leu Leu Ser Ser Ser
65 70 75 80

Asp Ser Pro Pro Thr Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Met
85 90 95

Ser His His Ala Gln Pro Ala Thr Leu Ser Phe
100 105

<210> 80

<211> 93

<212> PRT

<213> Homo sapiens

<400> 80

Gln Asp Arg Ile Ile Asn Leu Val Val Gly Ser Leu Thr Ser Leu Leu
1 5 10 15

Ile Leu Val Thr Leu Ile Ser Ala Phe Val Phe Pro Gln Leu Pro Pro
20 25 30

Lys Pro Leu Asn Ile Phe Phe Ala Val Cys Ile Ser Leu Ser Ser Ile
35 40 45

Thr Ala Cys Ile Leu Ile Tyr Trp Tyr Arg Gln Gly Asp Leu Glu Pro
50 55 60

Lys Phe Arg Lys Leu Ile Tyr Tyr Ile Ile Phe Ser Ile Ile Met Leu
65 70 75 80

Cys Ile Cys Ala Asn Leu Tyr Phe His Asp Val Gly Arg
85 90

<210> 81

<211> 498

<212> PRT

<213> Homo sapiens

<400> 81

Met Asp Val Thr Asp His Tyr Glu Asp Val Arg Lys Ile Tyr Asp Asp
1 5 10 15

Phe Leu Lys Asn Ser Asn Met Leu Asp Leu Ile Asp Val Tyr Gln Lys
20 25 30

Cys Arg Ala Leu Thr Ser Asn Cys Glu Asn Tyr Asn Thr Val Ser Pro

35

40

45

Ser Gln Leu Leu Asp Phe Leu Ser Gly Lys Gln Tyr Ala Val Gly Asp
50 55 60

Glu Thr Asp Leu Ser Ile Pro Thr Ser Pro Thr Ser Lys Tyr Asn Arg
65 70 75 80

Asp Asn Glu Lys Val Gln Leu Leu Ala Arg Lys Ile Ile Phe Ser Tyr
85 90 95

Leu Asn Leu Leu Val Asn Ser Lys Asn Asp Leu Ala Val Ala Tyr Ile
100 105 110

Leu Asn Ile Pro Asp Arg Gly Leu Gly Arg Glu Ala Phe Thr Asp Leu
115 120 125

Lys His Ala Ala Arg Glu Lys Gln Met Ser Ile Phe Leu Val Ala Thr
130 135 140

Ser Phe Ile Arg Thr Ile Glu Leu Gly Gly Lys Gly Tyr Ala Pro Pro
145 150 155 160

Pro Ser Asp Pro Leu Arg Thr His Val Lys Gly Leu Ser Asn Phe Ile
165 170 175

Asn Phe Ile Asp Lys Leu Asp Glu Ile Leu Gly Glu Ile Pro Asn Pro
180 185 190

Ser Ile Ala Gly Gly Gln Ile Leu Ser Val Ile Lys Met Gln Leu Ile
195 200 205

Lys Gly Gln Asn Ser Arg Asp Pro Phe Cys Lys Ala Ile Glu Glu Val
210 215 220

Ala Gln Asp Leu Asp Leu Arg Ile Lys Asn Ile Ile Asn Ser Gln Glu
225 230 235 240

Gly Val Val Ala Leu Ser Thr Thr Asp Ile Ser Pro Ala Arg Pro Lys
245 250 255

Ser His Ala Ile Asn His Gly Thr Ala Tyr Cys Gly Arg Asp Thr Val
260 265 270

Lys Ala Leu Leu Val Leu Leu Asp Glu Glu Ala Ala Asn Ala Pro Thr
275 280 285

Lys Asn Lys Ala Glu Leu Leu Tyr Asp Glu Glu Asn Thr Ile His His

45

102380-230460
082701

290

295

300

His Gly Thr Ser Ile Leu Thr Leu Phe Arg Ser Pro Thr Gln Val Asn
 305 310 315 320

Asn Ser Ile Lys Pro Leu Arg Glu Arg Ile Cys Val Ser Met Gln Glu
 325 330 335

Lys Lys Ile Lys Met Lys Gln Thr Leu Ile Arg Ser Gln Phe Ala Cys
 340 345 350

Thr Tyr Lys Asp Asp Tyr Met Ile Ser Lys Asp Asn Trp Asn Asn Val
 355 360 365

Asn Leu Ala Ser Lys Pro Leu Cys Val Leu Tyr Met Glu Asn Asp Leu
 370 375 380

Ser Glu Gly Val Asn Pro Ser Val Gly Arg Ser Thr Ile Gly Thr Ser
 385 390 395 400

Phe Gly Asn Val His Leu Asp Arg Ser Lys Asn Glu Lys Val Ser Arg
 405 410 415

Lys Ser Thr Ser Gln Thr Gly Asn Lys Ser Ser Lys Arg Lys Gln Val
 420 425 430

Asp Leu Asp Gly Glu Asn Ile Leu Cys Asp Asn Arg Asn Glu Pro Pro
 435 440 445

Gln His Lys Asn Ala Lys Ile Pro Lys Lys Ser Asn Asp Ser Gln Asn
 450 455 460

Arg Leu Tyr Gly Lys Leu Ala Lys Val Ala Lys Ser Asn Lys Cys Thr
 465 470 475 480

Ala Lys Asp Lys Leu Ile Ser Gly Gln Ala Lys Leu Thr Gln Phe Phe
 485 490 495

Arg Leu

<210> 82

<211> 104

<212> PRT

<213> Homo sapiens

<400> 82

Phe Tyr Lys Arg Glu Leu Leu Phe Phe Cys Cys Cys Phe Phe Ala Asp
 1 5 10 15
 Ser Thr Ile Ser Ala His Cys Gly Leu His Leu Met Asp Ala Arg Asp
 20 25 30
 Pro Pro Thr Ser Ala Ser Gln Ala Gly Thr Thr Val Val Asn His His
 35 40 45
 Ala Cys Leu Leu Phe Lys Phe Cys Val Glu Met Arg Ser His Cys Ile
 50 55 60
 Ala Ala Ala Gly Leu Glu Leu Leu Val Ser Ser Asn Pro Pro Ser Ser
 65 70 75 80
 Val Phe Gln Ser Ala Gly Ile Thr Gly Val Ser His Cys Ala Leu Pro
 85 90 95
 Asn Met Gly Ser Phe Arg His Ala
 100

<210> 83

<211> 216

<212> PRT

<213> Homo sapiens

<400> 83

Ser Glu Glu Thr Ile Thr Thr Thr Ile Gln Asp Leu Phe Pro Lys Val
 1 5 10 15

Met Lys Lys Met Arg Val Pro Ile Thr Leu Gly Cys Cys Leu Val Leu
 20 25 30

Phe Leu Leu Gly Leu Val Cys Val Thr Gln Ala Gly Ile Tyr Trp Val
 35 40 45

His Leu Ile Asp His Phe Cys Ala Gly Trp Gly Ile Leu Ile Ala Ala
 50 55 60

Ile Leu Glu Leu Val Gly Ile Ile Trp Ile Tyr Gly Gly Asn Arg Phe
 65 70 75 80

Ile Glu Asp Thr Glu Met Met Ile Gly Ala Lys Arg Trp Ile Phe Trp
 85 90 95

Leu Trp Trp Arg Ala Cys Trp Phe Val Ile Thr Pro Ile Leu Leu Ile
 100 105 110

Ala Ile Phe Ile Trp Ser Leu Val Gln Phe His Arg Pro Asn Tyr Gly
115 120 125

Ala Ile Pro Tyr Pro Asp Trp Gly Val Ala Leu Gly Trp Cys Met Ile
130 135 140

Val Phe Cys Ile Ile Trp Ile Pro Ile Met Ala Ile Ile Lys Ile Ile
145 150 155 160

Gln Ala Lys Gly Asn Ile Phe Gln Arg Leu Ile Ser Cys Cys Arg Pro
165 170 175

Ala Ser Asn Trp Gly Pro Tyr Leu Glu Gln His Arg Gly Glu Arg Tyr
180 185 190

Lys Asp Met Val Val Pro Lys Lys Glu Ala Gly His Glu Ile Pro Thr
195 200 205

Val Ser Gly Ser Arg Lys Pro Glu
210 215

<210> 84

<211> 79

<212> PRT

<213> Homo sapiens

<400> 84

Gly Gly Leu Phe Val Ala Gly Ile Asn Leu Thr Glu Asn Leu Gln Tyr
1 5 10 15

Val Leu Ala His Pro Ser Glu Ser Leu Glu Lys Met Thr Leu Pro Asn
20 25 30

Leu Pro Arg Leu Ser Ala Trp Val Arg Glu Gln Cys Pro Gly Pro Gly
35 40 45

Ser Arg Cys Thr Asn Ile Ile Ala Gly Asp Phe Ile Gly Ala Asp Gly
50 55 60

Phe Val Ser Asp Val Ile Ala Leu Asn Gln Lys Leu Leu Trp Cys
65 70 75